IEEE P802.11  
Wireless LANs

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| **Proposed Resolutions to Miscs PHY and MAC CIDs** |
| **Date:** 2018-11-09 |

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Abstract

This submission proposes resolutions for the following comments from the letter ballot LB233 on P802.11ax D3.0

* 16557, 16570, 16571, 16573, 16574, 16575, 16579, 16580

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| **CID** | **Sub Clause** | **PP.LL** | **Comment** | **Proposed Change** | **Resolution** |
| 16557 | 27.16.2.2.2 | 374.29 | There is potentially a technical issue with the rule for reporting the status of BSS color collision. Based on this paragraph, starting from line 28, once the AP sets the Color Disabled bit to 1 in HE Operation Element that it transmits, the non-AP HE STA does not report the BSS color collision even if it no longer exits. If it's the case, the HE AP could announce a BSS color change prematurely. This can give the hacker an easy way to force the HE AP to change its BSS color very frequently. | Remove the "Bss color collision no longer exists". The paragraph should read: "A non-AP HE STA that intends to autonomously report a BSS color collision to its associated HE AP, shall do so by scheduling for transmission a BSS color collision Event Report frame every dot11BSSColorCollisionSTAPeriod the associated HE AP has set the BSS Color Disabled bit to 1 in HE Operation element that it transmits or if the non-AP STA has transmitted several such reports to its associated HE AP. | Rejected. Although in certain race conditions, to allow the AP to continue to change its BSS color even when the reporting STA no longer detects the BSS Color collision, would have minimal impact on the network performance. |
| 16570 | 28.3.14.3 | 545.44 | Without an actual measurement and feedback from the HE AP, the non-AP HE STA has no way of knowing that the HE TB PPDU it transmits arrives at the AP within +/-0.4 us of TXTIME + aSIFSTime + RTD from the transmission start time of the triggering PPDU | On line 46 of this paragraph, change "shall ensure" to "should ensure" | Rejected.  The commenter offered no suggestion to how the STAs would be able to ensure the accuracy of its transmission to be received at the AP within the said time. |
| 16571 | 10.30.2 | 231.56 | The RD responder, which is a HE AP, may transmit a Basic Trigger frame to one or more non-AP HE STAs, not just any STAs | Modify the paragraph as follows: "If the RD initiator is an HE STA and the RD responder is an HE AP, the RD responder may transmit a Basic Trigger frame to trigger more than one non-AP HE-STA to do UL MU-MIMO transmission. The triggered non-AP HE-STA shall include the RD initiator in its transmitted HE TB PPDU." | Accepted. See the instruction to the TGax editor in doc. 11-18/1932r0 |
| 16573 | 9.4.2.241.3 | 156.28 | To emphasize the existence of the 20 MHz only non-AP HE STA, bit B1 should be described as suggested. | In the Encoding column, replace the description of B1 with the following: " For 5 GHz band, B1 is set to 1 for 20 MHz only non-AP HE STA. B1 is set to 1 for HE AP | Rejected. Although the proposed text offers a clearer definition of B1, we should keep the current definition in order to maintain the consistency with other Bx descriptions, . |
| 16574 | 9.4.2.237.3 | 156.37 | The definition of B4 should only apply to non-AP HE STAs | Change the definition for B4 to: "In 2.4 GHz band, a non-AP HE STA that sets the 20 MHz In 40 MHz HE PPDU subfield to 1 sets B4 to 1 to indicate support of 242-tone RU in a 40 MHz HE MU PPDU. Otherwise, B4 is set to 0" | Accepted. See the instruction to the TGax editor in doc. 11-18/1932r0 |
| 16575 | 9.4.2.241.3 | 156.43 | B5 definition should only apply to non-AP HE STAs. | In the definition of B5, change all non-AP STAs to non-AP HE STAs. | Accepted. See the instruction to the TGax editor in doc. 11-18/1932r0 |
| 16579 | 10.22.2.9 | 225.48 | Non-AP HE STAs are required to maintain 2 NAVs. | This paragraph does not apply to HE STA. There is no requirement that a HE STA that maintains one NAV would keep track of what caused the last update of the NAV. | Revised. This CID has been sufficiently addressed in P802.11ax Draft 3.2 |
| 16580 | 27.2.2 | 253.64 | There is no known benefits for a HE STA to determine a PPDU is an intra-BSS or inter-BSS PPDUs when it is associated with a non HE-AP. | Remove the paragraph. | Accepted See the instruction to the TGax editor in doc. 11-18/1932r0 |

**CID 16571**

**10.30.2 Reverse direction (RD) exchange sequence**

*TGax Editor: Update D3.2, P240L43-46 as shown below.*

If the RD initiator is an HE STA and the RD responder is an HE AP, the RD responder may transmit a Basic Trigger frame to trigger more than one non-AP HE STA to do UL MU-MIMO transmission. The triggered non-AP HE STAs shall include the RD initiator.

**CID 16574**

**9.4.2.241.3 HE PHY Capabilities Information field**

*TGax Editor: Update D3.2, Table 9-322b, P163L22-27 as shown below*

From :

If a non-AP STA operates with 20 MHz channel width and 20 MHz In 40 MHz HE PPDU In 2.4 GHz subfield is 1, then B4 indicates support of 242-tone RUs in a 40 MHz HE MU PPDU in the 2.4 GHz band. Otherwise, B4 is reserved.

To:

In 2.4 GHz band, a non-AP HE STA that sets the 20 MHz In 40 MHz HE PPDU subfield to 1 sets B4 to 1 to indicate support of 242-tone RU in a 40 MHz HE MU PPDU. Otherwise, B4 is set to 0.

**CID 16580**

**27.2.2 Intra-BSS and inter-BSS PPDU classification**

*TGax Editor: Update D3.2 by removing lines 64-65 on Page 263 shown below*

The PPDU is an HE PPDU with the RXVECTOR parameter BSS\_COLOR not equal to 0 and the STA is an HE STA associated with a non-HE AP.